

POOR LEGIBILITY

**ONE OR MORE PAGES IN THIS DOCUMENT ARE DIFFICULT TO READ
DUE TO THE QUALITY OF THE ORIGINAL**

INVESTIGATION NUMBER T (8 6) E 0 1 7

EPA I.D. NUMBER CA1570090026

EPA Region 9 TSCA Section 6 PCB Inspection Report

FACILITY NAME: General Dynamics Convair Division Plant 19

STREET ADDRESS: 4297 Pacific Highway

San Diego, CA 92101

MAILING ADDRESS: P.O. Box 85377

San Diego, CA 92138

PHONE#: (619) 542-8585

FACILITY TYPE: DoD contract facility

REPRESENTATIVE(S): Joe Dragonetti, Senior Facilities Engineer
(Name & Title)

Jeff Stumpf, Industrial Hygienist

Chuck Norman, DCA\$PRO, U.S. Air Force (619) 573-6098

INSPECTOR(S): (LEAD) Ayn E. Schmit

(2nd) Frances C. Schultz

INSPECTION DATE: November 14-15, 1985

INVESTIGATION CLOSED: February 4, 1986

REPORT DATE: March 16, 1986

EQUIPMENT INVENTORY

Transformers:

	Total #s of Equipment	Determination: *S/N/A	# in use	# in storage for reuse	# in storage for disposal
PCB	18	N,S	18		
PCB cont.	*approx. 8				

*Insufficient information was furnished by the facility to make an accurate determination of the number of PCB contaminated transformers.

Capacitors:

PCB	0				
NON PCB	0				

Other
electrical
equipment
(specify):

PCB	3	*S	3		
PCB cont.	2	*S	2		

Oil fuse cutout switches

* S = sample
N = name plate
A = assumed (by whom)

COMMENTS: *All oil circuit breakers at Plant 19 were drained and overhauled 2 years
previously. But at the time of the investigation, none of the approximately 90
oil fuse cutout switches located throughout the facility had been drained or tested
for PCB contamination. Many of the switches observed during the inspection showed

INVESTIGATION NUMBER T (8 6) E 0 1 7

REPORT ADDENDUM

significant leakage (see for example Photos #28-#30.) Subsequent to the investigation, testing of the switches for current levels of PCB contamination was performed by the facility at our instruction. Results of the testing, in the form of an annotated wiring diagram, were received from GD in early February. The diagram is included as Attachment 2. It should be noted that none of the 3 highly contaminated switches, located in 2 separate installations, were visited during our investigation, since they were not associated with PCB transformer installations. Since identical switches throughout the facility were ubiquitously leaking, it seems likely that there may be contamination at these installations, which are located on the exterior of Buildings 1 and 27.

An annotated wiring diagram showing the locations of PCB, PCB contaminated, oil, and dry type transformers at Plant 19 was provided by GD (Attachment 2). The diagram is not entirely accurate. It does not clearly indicate when substations have multiple transformers, as for example in the case of the substation at Column B-27 in Building 1.

It should be noted that we were not shown the PCB transformer located outside Building 4 on the west side.

The laboratory report for all analyses performed by EPA/NEIC, referred to in the report, is included as Attachment 4.

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 1 ground floor, Column B-27

B) Transformer Nameplate Information:

Westinghouse

Transformer Manufacturer

3011134 - 3011136

Transformer Serial Number

Silicone w/ >500 ppmType of PCB fluid or concentration of
PCBs in fluid (if known)142 gal. each

Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

☒ YES NO

Leaks (fluid on exterior surface(s) of equipment)

☒ YES NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: All 3 units were leaking, as shown in Photos #1-#9Quantity: UnknownType of Cleanup Attempted: None-- metal pans placed under valve

Environmental Hazard:

Proximity to: Waterway No Food NoPublic Access Limited employee access

Other _____

COMMENTS The 3 switches located next to the transformers were leaking, the middle one
most extensively (see Photo #10). Testing conducted subsequent to the inspection
showed that the switches were contaminated with 450 ppm, 82 ppm, and 46 ppm.

EQUIPMENT IN USE (continued)PCB Transformers Only

- *N.A. YES ☒ NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(85)E018)
- N.A. YES ☒ NO E) If transformer was leaking, was cleanup initiated within 48 hours?
- ☒ YES NO F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING
\$761.40

- ☒ YES NO G) Is transformer marked according to M_L?

\$761.45

- ☒ YES NO H) Is M_L in the correct marking format?

COMMENTS *The 3 transformers described above were retrofilled on July 7, 1983 by
RetroServ, Inc. Sampling by RetroServ in December 1983 showed that 2 of the 3 had
PCB concentrations of <50 ppm, and the 3rd was in the 50-500 ppm range. The 3 were
assumed to be non-PCB until sampling performed by General Electric for GD in January
1985 showed that all 3 transformers had >1000 ppm PCBs. Although Mr. Dragonetti
states in a memo dated 3-5-85 (included as Attachment 3) that 1 of the 3 transformers
began leaking in December 1984, no such leak is included in the inspection records
(included as Attachment 1 to Report No. T(86)E018.)

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 1 ground floor, Column C-29

B) Transformer Nameplate Information:

<u>General Electric</u>	Transformer Manufacturer
<u>C 856753</u>	Transformer Serial Number
<u>Pyranol</u>	Type of PCB fluid or concentration of PCBs in fluid (if known)
<u>290 gal.</u>	Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

☒ YES NO

Leaks (fluid on exterior surface(s) of equipment)

☒ YES NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: Main drain tap

Quantity: Unknown

Type of Cleanup Attempted: None

Environmental Hazard:

Proximity to: Waterway No Food No

Public Access Employee only

Other _____

COMMENTS _____

EQUIPMENT IN USE (continued)

PCB Transformers Only

N.A. YES NO

D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

N.A. YES NO

E) If transformer was leaking, was cleanup initiated within 48 hours?

YES NO

F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C	<u>MARKING</u>
\$761.40	

YES) NO

G) Is transformer marked according to M_L?

§761.45

YES NO

H) Is M_L in the correct marking format?

COMMENTS

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears slightly aged or off-white. There is no handwriting or other markings on the page.

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 1 ground floor, Column C-23

B) Transformer Nameplate Information:

General Electric

Transformer Manufacturer

C 856752

Transformer Serial Number

Pyranol

Type of PCB fluid or concentration of
PCBs in fluid (if known)

290 gal.

Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

YES ☒ NO

Leaks (fluid on exterior surface(s) of equipment)

YES ☒ NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: _____

Quantity: _____

Type of Cleanup Attempted: _____

Environmental Hazard:

Proximity to: Waterway _____ Food _____

Public Access _____

Other _____

COMMENTS _____

EQUIPMENT IN USE (continued)

PCB Transformers Only

N.A. YES NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

(N.A.) YES NO E) If transformer was leaking, was cleanup initiated within 48 hours?

YES NO F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING

§761.40

☒ YES ☐ NO G) Is transformer marked according to M_L?

§761.45

☒ YES NO H) Is M_L in the correct marking format?

COMMENTS

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 1 ground floor, Column C-16

B) Transformer Nameplate Information:

<u>Westinghouse</u>	Transformer Manufacturer
<u>6937301</u>	Transformer Serial Number
<u>Inerteen</u>	Type of PCB fluid or concentration of PCBs in fluid (if known)
<u>310 gal.</u>	Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

☒ YES NO

Leaks (fluid on exterior surface(s) of equipment)

YES ☒ NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: 1) Fluid on bottom of drain tap
2) Drip forming on drain tap near temperature gaugeQuantity: UnknownType of Cleanup Attempted: None

Environmental Hazard:

Proximity to: Waterway No Food NoPublic Access Employee onlyOther COMMENTS See Photos #13-#14.

EQUIPMENT IN USE (continued)

PCB Transformers Only

N.A. YES NO

D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

N.A. YES NO

E) If transformer was leaking, was cleanup initiated within 48 hours?

☒ YES ☐ NO

F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING

\$761.40

YES NO

G) Is transformer marked according to M_L ?

§761.45

YES NO

H) Is M_L in the correct marking format?

COMMENTS

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has some minor blemishes and dust specks, suggesting it might be a scan of a physical document. The edges of the paper are slightly irregular.

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 1 ground floor, Column C-7

B) Transformer Nameplate Information:

<u>Westinghouse</u>	Transformer Manufacturer
<u>6937296</u>	Transformer Serial Number
<u>Inerteen</u>	Type of PCB fluid or concentration of PCBs in fluid (if known)
<u>310 gal.</u>	Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

YES ☒ NO

Leaks (fluid on exterior surface(s) of equipment)

YES ☒ NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: _____

Quantity: _____

Type of Cleanup Attempted: _____

Environmental Hazard:

Proximity to: Waterway _____ Food _____

Public Access _____

Other _____

COMMENTS _____

EQUIPMENT IN USE (continued)

PCB Transformers Only

N.A. YES NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

N.A. YES NO E) If transformer was leaking, was cleanup initiated within 48 hours?

YES NO F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING

\$761.40

(YES) NO G) Is transformer marked according to M_L ?

\$761.45

☒ YES ☐ NO H) Is M_L in the correct marking format?

COMMENTS

[illegible]

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 1 ground floor, Column D-1

B) Transformer Nameplate Information:

General Electric

Transformer Manufacturer

C 856751

Transformer Serial Number

Pyranol

Type of PCB fluid or concentration of
PCBs in fluid (if known)

380 gal.

Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

☒ YES NO

Leaks (fluid on exterior surface(s) of equipment)

☒ YES NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: Drip from drain tap (see Photo #15-#16)

Quantity: Unknown

Type of Cleanup Attempted: None

Environmental Hazard:

Proximity to: Waterway No Food No

Public Access Employee only

Other _____

COMMENTS _____

EQUIPMENT IN USE (continued)

PCB Transformers Only

N.A. YES NO

D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

N.A. YES ☒ NO

E) If transformer was leaking, was cleanup initiated within 48 hours?

YES NO

F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING

\$761.40

YES NO

G) Is transformer marked according to M_T?

\$761.45

YES) NO

H) Is M_T in the correct marking format?

COMMENTS

[illegible]

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 1, 2nd Mezzanine, Column C-16

B) Transformer Nameplate Information:

<u>General Electric</u>	Transformer Manufacturer
<u>6417574</u>	Transformer Serial Number
<u>Silicone w/ >500 ppm</u>	Type of PCB fluid or concentration of PCBs in fluid (if known)
<u>204 gal.</u>	Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

☒ YES NO

Leaks (fluid on exterior surface(s) of equipment)

☒ YES NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: Bushings on E and W sides and drain tap on N side

Quantity: Unknown-- leak has been ongoing at least since 8-2-85

Type of Cleanup Attempted: See comments.

Environmental Hazard:

Proximity to: Waterway No Food No

Public Access Limited employee only

Other

COMMENTS The leaks from this transformer are shown in Photos #19-#23. Fluid has
dripped from the suspended metal substation deck onto the wood floor of the 2nd
Mezzanine directly beneath. Photo #26 shows evidence of past and current leakage

INVESTIGATION NUMBER T (8 6) E 0 1 7

REPORT ADDENDUM

of material onto the pipes and ballast beneath the transformer deck. The extent of surface contamination on these surfaces is unknown and likely to be difficult to assess, due to the complexity and inaccessibility of the sub-ceiling structures.

A section of heavily contaminated wood flooring was removed by the facility, as shown in Photos #24-#25, but continued spillage is apparent on newly exposed surfaces. IT is under contract to monitor the leaking transformer and clean up continuing leakage. The nature and extent of their activities is difficult to assess due to a lack of any written records. However, the containment/cleanup strategy was visibly ineffective, as evidenced by the considerable amount of leaked fluid on the transformer and deck at the time of the inspection.

EQUIPMENT IN USE (continued)PCB Transformers Only

- N.A. ☒ YES NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)
- *N.A. YES NO E) If transformer was leaking, was cleanup initiated within 48 hours?
- ☒ YES NO F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING
\$761.40

- ☒ YES NO G) Is transformer marked according to M_L ?

\$761.45

- ☒ YES NO H) Is M_L in the correct marking format?

COMMENTS *Unknown.

INVESTIGATION NUMBER T (8 6) E 0 1 7

REPORT ADDENDUM

COLUMN C-28 SUBSTATION (2nd MEZZANINE):

This substation currently has a dry type transformer. The 3 associated oil fuse cutout switches were leaking, and had not been tested by the facility at the time of the inspection. A PCB transformer was located at this installation until 1984.

COLUMN C-22 SUBSTATION (2nd MEZZANINE):

This substation currently has a dry type transformer (shown in Photo #32). The oil fuse cutout switches in the installation were leaking. There was considerable visual evidence of past and current leakage of fluids from the substation. As shown in Photos #32-#34, fluids could be observed dripping along an electrical bus and from a floor rivet on the substation deck onto piping and light ballasts beneath. Leakage had saturated a large area of wooden flooring on the 2nd mezzanine below the substation (see Photo #35). A composite sample of surface wood fragments was taken from 4 points within the stained area.

This sample, #AS-0070, was found to contain 16 ppm Aroclor 1260. It should be noted that due to the potential dilution associated with composite sampling, this figure does not provide an accurate representation of the level of contamination present at any single point within the stain. Photos #36-#37 document the sample collection.

There is some ambiguity concerning the precise source of the leak. Testing of the leaking switches performed subsequent to the inspection showed that

INVESTIGATION NUMBER T (8 6) E 0 1.7

REPORT ADDENDUM

none of the 3 contained >3 ppm PCBs. Unless the switches were more highly contaminated at one time and have been diluted by repeated topping off, the contamination on the floor must have resulted from leakage of the PCB transformer in service until 1984. In any event, contamination of the floor indicates that there is likely to be contamination of sub-ceiling surfaces similar to that at the Column C-16 substation.

A stained area was observed on the wood floor of the 1st mezzanine roughly beneath the contaminated area of the 2nd mezzanine. It is unknown whether this resulted from spillage penetrating the floor above and dripping down, although no other potential source could be readily observed. No sampling of this stained area has been performed.

COLUMN C-10 SUBSTATION (2nd MEZZANINE):

This substation currently has a dry type transformer. The 3 associated oil fuse cutout switches were leaking. Evidence of past and current spillage from the substation deck was apparent, as shown in Photo #38. The wood floor of the 2nd mezzanine beneath the substation was stained in an area approximately 3 ft. by 5 ft., as shown in Photo #39. Sample #AS-0071, surface wood fragments collected within the stained area, was found to contain 100 ppm PCBs. As with the Column C-22 substation, there were low concentrations of PCBs in the leaking switches: 2.0, 3.7, and 7.0 respectively. Again, although the precise source of the leak can only be surmised, it seems likely that it originated from the PCB transformer formerly in service.

INVESTIGATION NUMBER T (8 6) E 0 1 7

REPORT ADDENDUM

COLUMN C-4 SUBSTATION (2nd MEZZANINE):

This substation has a dry type transformer which replaced the PCB transformer formerly in service. Once again, fluids were leaking from a rivet on the deck of the substation onto the pipes and ballasts beneath, as shown in Photo #41-#42. The facility had placed buckets under the pipes to catch drips, although spillage on newly exposed flooring (shown in Photo #45) and on light fixtures (shown in Photo #42) clearly indicate that the buckets were not an effective form of containment. The material in both buckets was sampled (see Photos #43-#44). Sample #AS-0072, oil from the west bucket, contained 710 ppm PCBs. Sample #AS-0073, oil from the east bucket, contained 44 ppm PCBs. All of the leaking switches at this substation were found to contain <2.0 ppm PCBs.

2nd MEZZANINE SUBSTATIONS IN BUILDINGS 2 AND 3:

Both Buildings 2 and 3 each had 5 substations suspended above the 2nd mezzanine in a fashion similar to Building 1. All of these locations are currently occupied by dry type transformers, but contained PCB transformers prior to 1984. According to facility representatives, all of the PCB transformers which were replaced in 1984 were leaking at the time of their replacement. Due to time constraints and security problems, we were unable to include these locations within the scope of our investigation.

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 2 ground floor, Column B-4

B) Transformer Nameplate Information:

General Electric

Transformer Manufacturer

7147123

Transformer Serial Number

Pyranol

Type of PCB fluid or concentration of
PCBs in fluid (if known)

292 gal.

Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

YES ☒ NO

Leaks (fluid on exterior surface(s) of equipment)

YES ☒ NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: _____

Quantity: _____

Type of Cleanup Attempted: _____

Environmental Hazard:

Proximity to: Waterway _____ Food _____

Public Access _____

Other _____

COMMENTS The 3 oil fuse cutout switches associated with this transformer were
leaking. They had not been tested at the time of the inspection.

EQUIPMENT IN USE (continued)

PCB Transformers Only

(N.A.) YES NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

(N.A.) YES NO E) If transformer was leaking, was cleanup initiated within 48 hours?

(YES) NO F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C	<u>MARKING</u>
\$761.40	

☒ YES NO G) Is transformer marked according to M_L?

\$761.45

YES NO H). Is M_L in the correct marking format?

COMMENTS

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 3

B) Transformer Nameplate Information:

General Electric

Transformer Manufacturer

C 503430

Transformer Serial Number

PyranolType of PCB fluid or concentration of
PCBs in fluid (if known)375 gal.

Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

☒ YES NO

Leaks (fluid on exterior surface(s) of equipment)

☒ YES NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: From drain valve and at base weld (see Photos #46-#49)Quantity: UnknownType of Cleanup Attempted: None-- can placed under valve leak

Environmental Hazard:

Proximity to: Waterway No Food NoPublic Access Employee only

Other _____

COMMENTS _____

EQUIPMENT IN USE (continued)

PCB Transformers Only

*N.A. YES ☒ NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

N.A. YES ☒ NO E). If transformer was leaking, was cleanup initiated within 48 hours?

*YES ☒ NO F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING

\$761.40

☒ YES ☐ NO G) Is transformer marked according to M_L ?

\$761.45

YES NO H) Is M_T in the correct marking format?

COMMENTS *This transformer does not even appear in current inspection records (see
Report No. T(86)E018).

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 3 ground floor

B) Transformer Nameplate Information:

<u>General Electric</u>	Transformer Manufacturer
<u>C-856754, C-856755</u>	Transformer Serial Number
<u>Pyranol</u>	Type of PCB fluid or concentration of PCBs in fluid (if known)
<u>290 gal. each</u>	Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

YES ☒ NO

Leaks (fluid on exterior surface(s) of equipment)

YES ☒ NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: _____

Quantity: _____

Type of Cleanup Attempted: _____

Environmental Hazard:

Proximity to: Waterway _____ Food _____

Public Access _____

Other _____

COMMENTS _____

EQUIPMENT IN USE (continued)

PCB Transformers Only

(N.A.) YES NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

(N.A.) YES NO E) If transformer was leaking, was cleanup initiated within 48 hours?

(YES) NO F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING

\$761.40

☒ YES ☐ NO G) Is transformer marked according to M_L?

\$761.45

☒ YES NO H) Is M_L in the correct marking format?

COMMENTS

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 3 ground floor

B) Transformer Nameplate Information:

General Electric

Transformer Manufacturer

C-583472, C-583473

Transformer Serial Number

Pyranol

Type of PCB fluid or concentration of
PCBs in fluid (if known)

300 gal. each

Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

☒ YES NO

Leaks (fluid on exterior surface(s) of equipment)

☒ YES NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: Drip from drain valve of #C-583472 (see Photo #50-#51)

Quantity: Unknown

Type of Cleanup Attempted: None

Environmental Hazard:

Proximity to: Waterway No Food No

Public Access Employee only

Other _____

COMMENTS _____

EQUIPMENT IN USE (continued)

PCB Transformers Only

N.A. YES ☒ NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

N.A. YES (NO) E) If transformer was leaking, was cleanup initiated within 48 hours?

(YES) NO F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING

\$761.40

(YES) NO G) Is transformer marked according to M_L?

\$761.45

☒ YES NO H) Is M_L in the correct marking format?

COMMENTS

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 4 Roof

B) Transformer Nameplate Information:

<u>Line Material Co.</u>	<u>Transformer Manufacturer</u>
<u>1408448</u>	<u>Transformer Serial Number</u>
<u>Concentration unknown</u>	<u>Type of PCB fluid or concentration of PCBs in fluid (if known)</u>
<u>Unknown</u>	<u>Quantity of Oil in transformer</u>

SUBPART D
\$761.60

C) Does Transformer Have:

☒ YES NO

Leaks (fluid on exterior surface(s) of equipment)

☒ YES NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: Around valve stem (see Photos #58-#59)Quantity: UnknownType of Cleanup Attempted: None

Environmental Hazard:

Proximity to: Waterway No Food NoPublic Access Employee only

Other _____

COMMENTS _____

EQUIPMENT IN USE (continued)PCB Transformers Only

- N.A. YES ☒ NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)
- N.A. YES ☒ NO E) If transformer was leaking, was cleanup initiated within 48 hours?
- ☒ YES NO F) Is transformer inspected quarterly/annually/weekly? (circle one)

SUBPART C MARKING

\$761.40

- ☒ YES NO G) Is transformer marked according to M_L?

\$761.45

- ☒ YES NO H) Is M_L in the correct marking format?

COMMENTS This substation contained 3 Line Material Co. transformers: #1408447 -
#1408449. Although #1408448 had been identified as PCB by the facility and marked
accordingly, they could produce no data demonstrating the PCB concentration of this
or #1408447 or #1408449. All 3 transformers were leaking considerably. Photos
#52 and #53-#57 illustrate the leaks from the non-PCB identified transformers. At
the writing of this report, the facility still has not produced data showing that
#1408447 and #1408449 are not PCB contaminated.

EQUIPMENT IN USEPCB/PCB Contaminated Transformers:

- * All transformers are considered contaminated unless proven otherwise.
- * No inspection requirements for PCB contaminated transformers.
- * No marking requirements for PCB contaminated transformers.

A) Transformer Location: Building 7 Roof

B) Transformer Nameplate Information:

General Electric

Transformer Manufacturer

6579308

Transformer Serial Number

PyranolType of PCB fluid or concentration of
PCBs in fluid (if known)95 gal.

Quantity of Oil in transformer

SUBPART D
\$761.60

C) Does Transformer Have:

☒ YES NO

Leaks (fluid on exterior surface(s) of equipment)

☒ YES NO

Spills (fluid has run off/dripped from exterior surface(s))

If YES, describe:

Location: From bushings, valve, and top flangeQuantity: UnknownType of Cleanup Attempted: None

Environmental Hazard:

Proximity to: Waterway No Food NoPublic Access Employee only

Other _____

COMMENTS See Photos #60-#64.

EQUIPMENT IN USE (continued)

PCB Transformers Only

N.A. YES ☒ NO D) If transformer was leaking, was leak noted on Inspection Records?
(evaluated in Report No. T(86)E018)

N.A. YES ☒ NO E) If transformer was leaking, was cleanup initiated within 48 hours?

(YES) NO F) Is transformer inspected quarterly annually/weekly? (circle one)

SUBPART C MARKING

\$761.40

(YES) NO G) Is transformer marked according to M_L?

\$761.45

☒ YES NO H) Is M_L in the correct marking format?

COMMENTS

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or printed text on the paper.

SUBPART D STORAGE FOR DISPOSAL\$761.65 (1) Permanent Storage for Disposal:

Facility must comply with the following:

- *YES ☒ NO a) impervious floor and curbing (no cracks or drains) with continuous curbing 6" high
- ☒ YES NO b) must have containment volume equal to 2 X volume of largest container, or 25% of total internal volume of all PCB equipment and containers, whichever is greater
- ☒ YES NO c) adequate roof and walls to prevent rainwater from entering
- ☒ YES NO d) located above 100 year floodplain
(see Photo #65)
- YES ☒ NO e) facility must be marked M_L
- YES ☒ NO f) Is M_L in the correct marking format?
- YES ☒ NO g) all PCB articles and containers over 500 ppm must be checked for leaks every 30 days
- ☒ YES NO h) any container used for storage of PCB's must comply with DOT specs
- ☒ N.A. YES NO i) all facility made containers must be proven to be equivalent to DOT standards
- ☒ N.A. YES NO j) all PCB equipment is marked according to M_L
- ☒ YES NO k) all PCB articles must be marked with the date they were placed in storage, and must be able to be located according to date of storage
- ☒ N.A. YES NO Was all equipment placed in storage pre-1/1/83 removed and disposed of by 1/1/84?
- **N.A. YES NO Has all equipment placed in storage post-1/1/83 been removed and disposed of within 1 year from initial storage?
- YES ☒ NO Does facility have any equipment in storage for reuse?
If YES, note condition and marking of equipment in COMMENTS.

COMMENTS: *There are holes in the concrete floor which were used in the past to bolt heavy machinery in place. The facility representative maintained that the holes did not run through the pad, but it was difficult to ascertain this.

**This could not be determined due to the lack of a storage/disposal annual document.

INVESTIGATION NUMBER T (8 6) E 0 1 7

POTENTIAL VIOLATIONS

SUBPART B -- USE OF PCBs AND PCB ITEMS

§761.30(a)(1)(x) The facility failed to adequately contain active leaks of PCBs from transformers and switches, including but not limited to a leak from the transformer substation located at Column C-16, Building 1, 2nd Mezzanine.

SUBPART C -- MARKING

§761.40(a)(10) The PCB storage for disposal area in Building 1 was not marked with M_L.

SUBPART D -- STORAGE AND DISPOSAL

§761.60(d) Spills and leaks of PCBs in multiple locations throughout Plant 19 constitute the unauthorized disposal of PCBs.

§761.65(b)(3) The PCB storage for disposal area in Building 1 was not marked with M_L.

INVESTIGATION NUMBER T (8 6) E 0 1 7

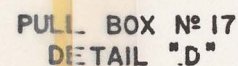
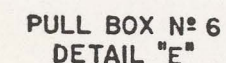
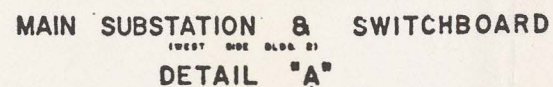
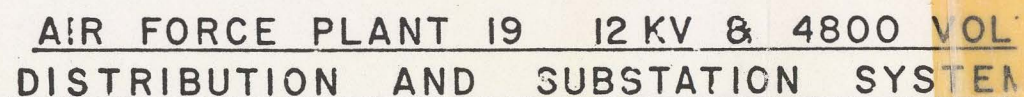
REPORT ATTACHMENTS

Photographs

1. Diagram: Air Force Plant 19 Distribution and Substation Systems, annotated to show locations of oil fuse cutout switches and the PCB concentration of each.
2. Diagram: Air Force Plant 19 Distribution and Substation Systems, annotated to show locations and types of all transformers.
3. Memo: from J. Dragonetti to C. Talbott, re: retrofill of transformers, 5 March 1985.
4. Memo: from Dean Hill, EPA/NEIC to Kathleen Shimmin, Field Operations Branch, re: PCB analyses, January 8, 1986.

ATTACHMENT 1

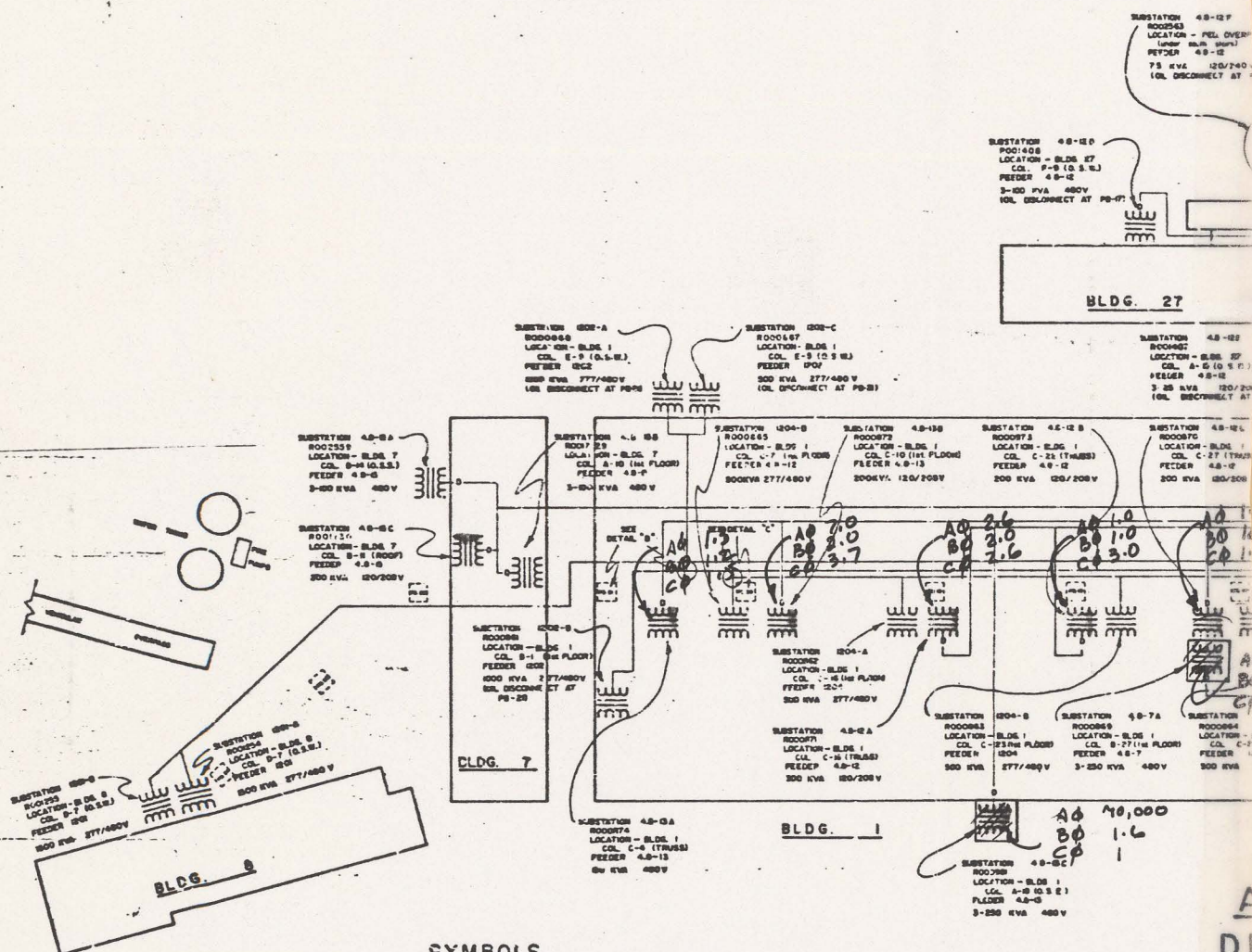
P.C.B. TRANSFORMERS. (REPLACEMENT FUNDING
RECEIVED FROM USAF. CONTRACT AWARDED.)

[illegible]

ATTACHMENT 2

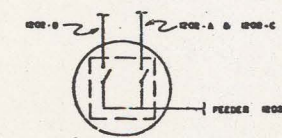
INDICATES OIL FUSED SWITCHES
(AMMOUNT OF PCB CONCENTRATION)

SWITCHES TO BE REPLACED

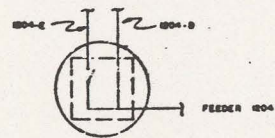


SYMBOLS

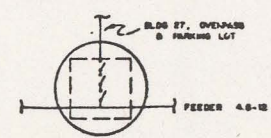
- D - OIL FUSE CUTOUT
- OIL SWITCH
- DISC SWITCH
- PB - PULL BOX



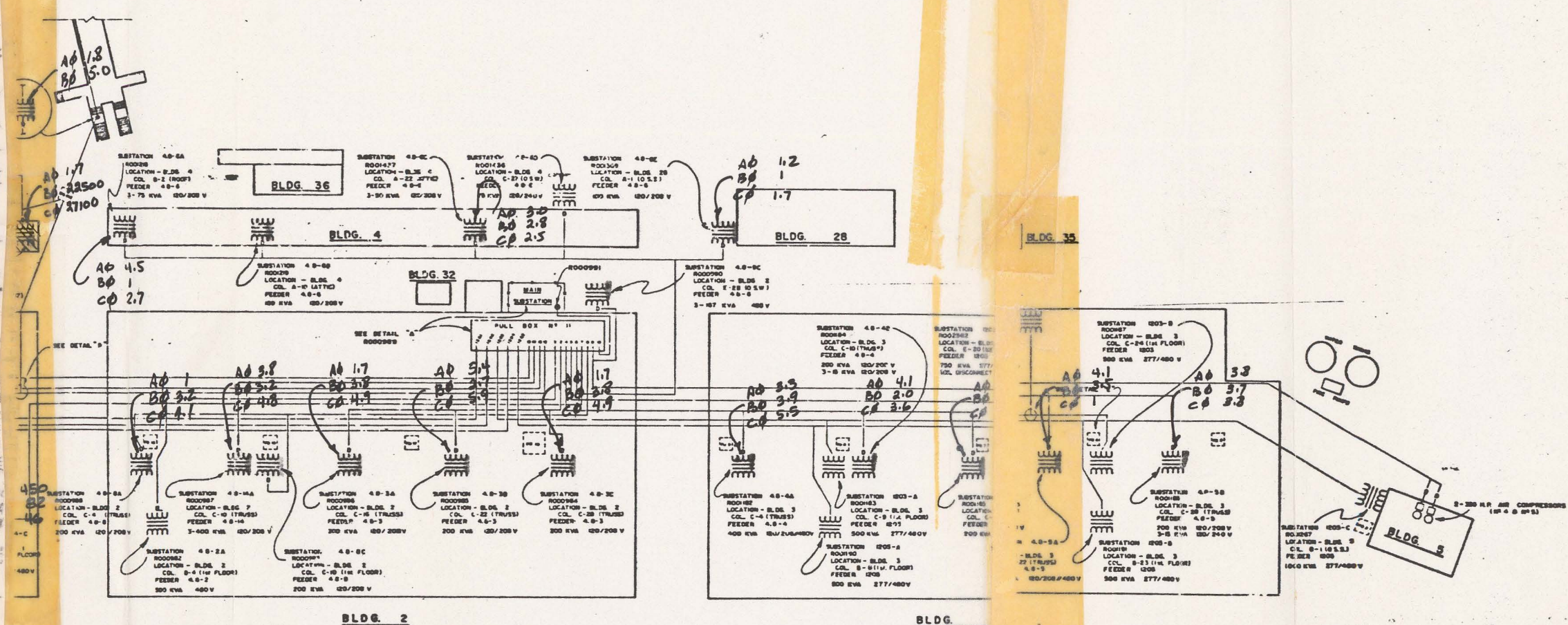
PULL BOX No. 21
DETAIL "B"



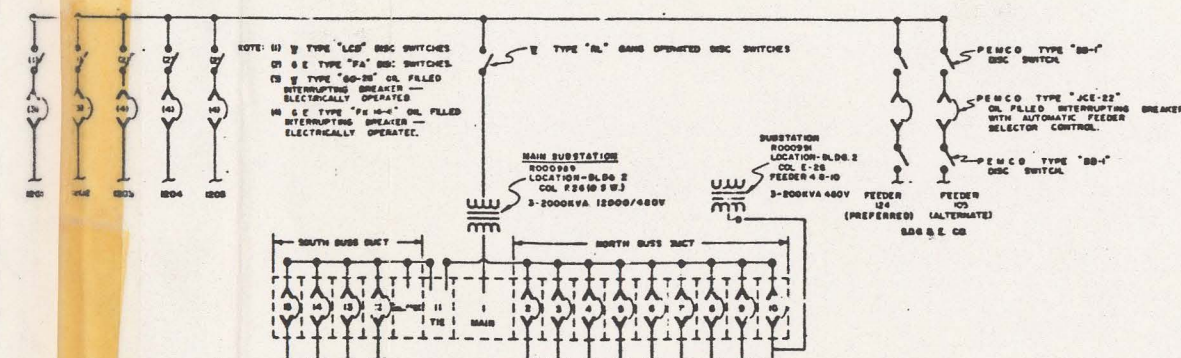
PULL BOX No. 20
DETAIL "C"



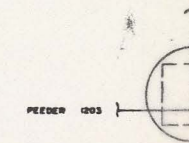
PULL BOX No. 17
DETAIL "D"



AIR FORCE PLANT 19 12 KV & 4800 VOLT DISTRIBUTION AND SUBSTATION SYSTEMS



MAIN SUBSTATION & SWITCHBOARD
DETAIL "A"



PULL BOX No. 6
DETAIL

GENERAL DYNAMICS									
PLANT DIVISION									
AIR FORCE PLANT 19 - 12 KV & 4800 VOLT									
DISTRIBUTION AND SUBSTATION SYSTEMS									
REV	DATE	BY	CHKD	APPROVED	DATE	BY	CHKD	APPROVED	DATE
1	12-22-72	CSM							
2	1-11-73	CSM							
3	1-11-73	CSM							
4	1-11-73	CSM							
5	1-11-73	CSM							
6	1-11-73	CSM							
7	1-11-73	CSM							
8	1-11-73	CSM							
9	1-11-73	CSM							
10	1-11-73	CSM							

ATTACHMENT 3

GENERAL DYNAMICS

Convair Division

5 March 1985

To: C. T. Talbott
From: J. T. Dragonetti
Subject: P.O. # 45-67307 - Retrofill of 8 Transformers at
U.S.A.F. Plant 19

On December 16, 1984 a transformer which was retrofilled from P.C.B. Fluid to Silicone developed a leak. This transformer was classed non P.C.B. as a result of the subject retrofill. General Electric Company (G.E.) was given a Purchase Order to repair the transformer. Before G.E. would work on the transformer they took test samples of the silicone fluid in the 3 transformer bank, to be sure that the P.C.B. level was below 50 parts per million. All 3 transformers were over 1000 parts per million which classified the transformers as P.C.B. filled and under Federal Law cannot be opened for service or repair. The remaining 5 transformers have been sampled and the fluid is being tested. I suspect that they also are over 1000 parts per million.

On 8 January 1985, I called Leon Billington, owner of Retro Serv Inc., and told him that the P.C.B. level had risen to over 1000 parts per million. He told me that most transformers that he has retrofilled have risen in P.C.B. concentration to over 1000 parts per million because of saturation of wood spacer blocks and paper insulation with P.C.Bs. The P.C.B.s would leach out into the silicon for from 1 to 5 years and they (Retro Serv Inc.,) would be glad to install filters for an additional cost. Retro Serve Inc., in their literature, state that due to the effectiveness of their filtration system Retro Serv guarantees reclassification to EPA Standards of below 50 parts per million of P.C.B.s effective 90 days after retrofilling.

Per your suggestion, I went to see Dick Peck of the Convair Legal Staff about the problem and he suggests that you write Retro Serve Inc., a letter informing them that work shall commence immediately to filter the silicone fluid to bring the P.C.B. content below 50 parts per million at no additional cost to Convair. If they refuse he suggests that we hire another firm to do the work and he will sue for the costs incurred. Dick suggests that you call him prior to writing the letter.

I am enclosing documents, that I have, on all the correspondence with Retro Serv.


J. T. Dragonetti
Facilities Engineer, Sr.

ATTACHMENT 4